METHOD AND SYSTEM FOR PRESENTING THREE-DIMENSIONAL COMPUTER GRAPHICS IMAGES USING MULTIPLE GRAPHICS PROCESSING UNITS

ABSTRACT

The present invention provides a method and system for presenting three-dimensional computer graphics images using multiple graphics processing units. The dimensions of the scene to be rendered are bounded by a rectangular volume decomposed into rectangular subvolumes. Vertices of graphics primitives are compared with subvolume boundaries to determine to which subvolume a graphics primitive should be assigned. A GPU is assigned to each subvolume to render the graphics data that lies within it. A viewing position point is determined and communicated to each GPU. Rendered graphics data from each GPU are ordered based upon the viewing position Outputs of the individual GPUs are combined by blending within an image combiners. Outputs of image combiners can be presented for viewing or further combined in a subsequent stage image combiner.

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